Innovation at the Department of Health and Human Services:

Strategies to Empower HHS Employees and

Build a 21st Century Workforce of Problem-Solvers

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I.   **Overview**

The Secretary's greatest asset in fulfilling the mission of the Department is its workforce. In order to truly take advantage of one of the most remarkable periods of transformation in the Department's history, our organization needs to reinvent the way it executes its mission. This demands a focus on our internal processes and the methods for how we embrace change within the Department. With the same aspiration and inspiration that President Obama invoked among the populace for change during his first presidential campaign, we believe our efforts can empower each employee to look differently at the way they work and, therefore, significantly increase our effectiveness, even in these difficult times. Here, we define new approaches that build on the success of the last four years and describe our vision of employee empowerment and engagement in order to create a 21st century workforce of problem-solvers.

In 2010 the Department began its innovation efforts, as part of the Open Government initiative, by building momentum to advocate for transparency, collaboration, and participation. The Secretary's Innovation Council became a fulcrum for the lever of change by encouraging dialogue, exploring risk-taking and rewarding employees that were passionate about innovation. Through the Council and the Office of the Chief Technology Officer a number of new innovation programs and initiatives have been launched, such as the Secretary's Innovation Award program (HHS*innovates*), which has lead to the creation of more than five hundred staff-led innovations, and the Health Data Initiative, through which our efforts to unleash data have spawned numerous new products and approaches to improving public health, health care and the delivery of human services, both inside and outside the walls of government.

We are now building on these successes through several new strategies that function as jumping off points for change to enhance the quality and value of our services, improve the productivity of our workforce, and boost employee satisfaction. Our focus is not just on empowering today's workforce but also to help nurture the next generation of HHS leaders and build a workplace culture that will attract the best and brightest minds and to transform how health and human services are provided.

As a measurement of our overall progress towards this goal, we believe every HHS employee should have the opportunity to answer in the affirmative the following three conditions regarding their workplace environment:

- I am constantly looking for ways to do my job better
- I feel encouraged to come up with new and better ways of doing things
- Creativity and innovation are rewarded

These are established metrics that are collected each year through the *Office of Personnel Management's Federal Viewpoint* survey. They are used by the Partnership for Public Service in assessing an organization's innovation index and we believe these statements are a good starting place to measure the pulse of innovation among our employees.

We have identified five guiding principles for enabling this transformation:

1. Frictionless collaboration is central to enhancing peer support, building networks and enabling effective knowledge transfer
2. New methods for problem-solving are an imperative if we are to fully capitalize on employee talent
3. Entrepreneurship and experimentation should be supported and encouraged by management
4. Innovation can be fueled with open partnerships that leverage communities beyond the Federal government
5. Objective measures of results can provide a compass for better decision-making and iterative learning

In the sections that follow we detail the role of our office in enabling this change, each of these guiding principles, the projects we are executing on to embed them into the culture, and some metrics we will use to measure the success of our efforts.

II.   The Role of the Chief Technology Officer in Promoting Innovation

Substantial innovation capacity exists throughout the organization. Several operating and staff divisions house innovation units that are focused on mission-relevant topics, such as drug development, healthcare delivery or biomedical research. As part of the Immediate Office of the Secretary, the Chief Technology Officer oversees opportunities to leverage underutilized assets – initially identified as data and our human capital – to maximize productivity. We are uniquely positioned to incubate and oversee Department-wide innovation activities. Thus, our programs address crosscutting problems that impact Secretarial priorities, affect multiple units of the organization, and demand an enterprise-wide solution.

The Chief Technology Officer, a position established 3 years ago, operates under the following set of core beliefs:

1) Every individual (employee or stakeholder) has the ability to improve the health and well-being of all Americans;
2) people are more powerful when working together, and;
3) there is a solution to every problem.

Therefore, when it comes to recognizing the full value in the Department's human capital, our mission is to identify the people inside and outside of government who passionately believe in their ideas, connect them, and provide them with the environment they need to successfully execute.

With regard to leveraging our underutilized data assets, our mission is to liberate valuable datasets and promote creative applications to improve health and health care. We work

collaboratively with internal and external stakeholders to develop a vibrant ecosystem that utilizes our data as the rocket fuel for innovation. We play key roles in educating stakeholders about what can be done with our data, incentivizing the use of data to solve problems, and showcasing ways in which data-driven solutions can transform health care and human services.

Our specific approach is to incubate new concepts and catalyze innovation initiatives that can be piloted centrally, with the idea that they can eventually be absorbed, mirrored or copied at the program level. Thus, our portfolio is one that is constantly shifting, shrinking or growing to meet the innovation needs of the Department. Over the next three years, we will consider the overall mission of our unit as having been fully accomplished when we are no longer needed, and when the tools and strategies we have catalyzed are woven into the fabric of employee culture across our operating divisions.

III.   Painting the Portrait of Culture Change

As we approach the mid-point of the second decade in the 21st century, enormous forces of change are influencing the workplace, inside and outside of government. The evolution of our nation's health care system, from one based on services provided to an information-based health ecosystem, is felt in every corner of our organization. Uses of information and communication technologies are essential to meet today's demands for speed, precision, accuracy, accountability and security. The sustainment and curation of institutional knowledge amidst a rapidly aging workforce are today's realities that will impact tomorrow's capabilities to fulfill our mission. The business sector of our economy is relying more heavily on open innovation methods to achieve productivity and competitiveness in the marketplace, and we must follow their lead. For government to optimize its use of resources and ensure that we deliver on our ambitious mission, **we must find ways to abandon failed methods, challenge current practices of bureaucracy, and liberate not only our data but the knowledge, skills, and capabilities of HHS employees**. Importantly, we need to define the characteristics of this change, define objective goals and metrics for assessing our progress, and establish expectations that all employees can comprehend.

The word "innovation" has become overused and therefore lost its specificity. This is partially because the concept of innovation is somewhat abstract and difficult to explain or execute on. Therefore, we have chosen a new definition of "innovation" to ground and focus our activities - one that encodes action and offers a tangible next step. Specifically:

Innovation is *the direct result of the **freedom to experiment***.

Our innovation efforts focus on empowerment of employees. Innovative behavior is not something that can be mandated—an employee cannot be instructed to simply "be innovative" and expect to succeed. Rather, innovation is the by-product of experimentation—the establishment of a hypothesis, followed by rigorous testing, measuring and rapidly iterating.

Our approach to fueling innovation at the Department will not be through management edict but rather by engaging and encouraging managers and employees to unleash their creativity to accomplish their missions. In an organization like ours with well-established silos and entrenched hierarchical structures, there is no single step that can be taken or any single action that will create a sense of empowerment and foster creativity and experimentation across the entire organization—especially in a lasting manner. Rather, we believe that we must achieve these aims through developing core principles and establishing pilot projects and demonstrations, which will also show the validity of our approaches. In a few isolated areas, policies or directives may be possible, but in most cases we must lead by example, serving as a "bright light" by inspiring innovation through demonstrating what works, proving that intelligent failures are positive results and encouraging employees and managers alike through the power of positive persuasion.

What characteristics describe our workforce of the future? Descriptors that come to mind are entrepreneurial, data-driven, forward thinking, responsive, passionate, networked and engaged. We want the Department to be a place that smart minds gravitate toward, a place where employment is not seen as a haven for the risk-adverse but rather an environment that attracts agents of change, those who have the passion to persevere through tough problems and those who can keep the end goal in mind when wrestling through the inevitable set-backs that come with forging new ground. The Department should be thought of as the groundbreaking thought leader when it comes to new approaches to public health, health care, and the delivery of human services.
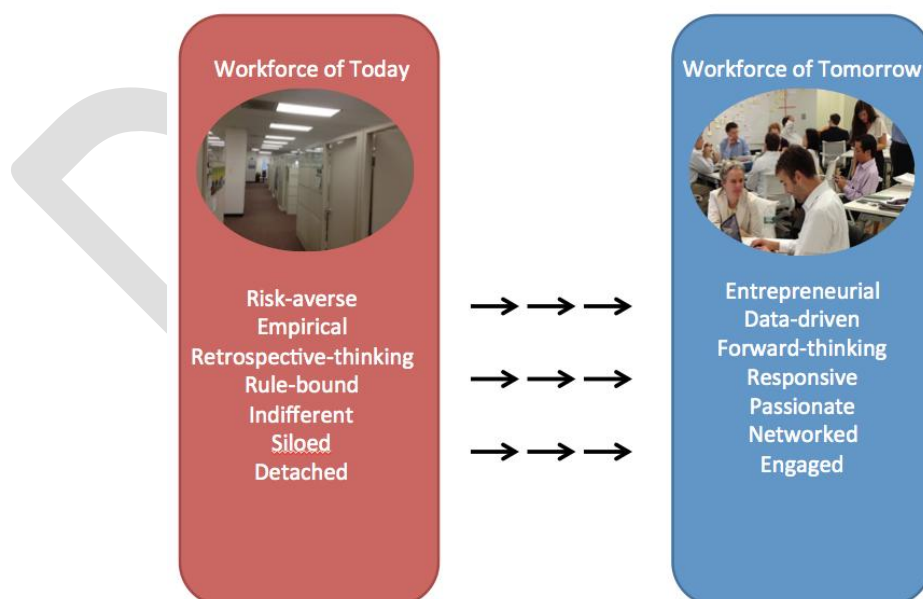
With all of this in mind, we have established a set of five guiding principles that are necessary for spurring innovation at HHS and building the foundation for a 21st century workforce:

1. Frictionless collaboration is central to enhancing peer support, building networks and enabling effective knowledge transfer

In an organization as large and heterogeneous as ours, it is understandable how daunting it is for employees to find peers and knowledge experts to consult with when determining how best to carry out a given task. The projects and assignments each employee engages in each day require a remarkable amount of interaction—interactions which would be massively enhanced if only employees could easily find peers to engage with.

In 2012 we instituted several department-wide electronic systems and negotiated terms of service agreements to enable networked communications among HHS employees. Moving beyond the linearity and constraints of current communication mechanisms such as email and the inefficiencies and frustrations it entails, we are implementing department-wide collaboration tools such as Yammer (known as HHS*connect*) to allow employees to simply and quickly broadcast messages, ask questions and crowdsource ideas. We are working with various parts of the Department to pilot task management tools, webcasting and other community platforms that enable better prioritization, increased connection with colleagues across the Department, and more productive work. We predict the use of collaboration tools will expand over time to build a stronger sense of community, greater satisfaction and performance, and enhance the knowledge base of HHS employees. The increased ability to collaborate across the federal government is highly aligned with the Administration's Open Government and Digital Strategy initiatives. It is also an important way in which younger generations, our new and prospective employees, are communicating in their private lives and the private sector, and will expect to communicate professionally in the public sector.

In addition to virtual collaboration, physical collaboration across administrative boundaries presents a significant challenge in the Department. In the scientific literature exploring the history of innovation and breakthrough developments, it is often noted that many of these new ideas result directly from a number of people with different backgrounds and experiences working together in close physical proximity. This is sometimes referred to as enabling "serendipitous collisions." Unfortunately, in the current physical spaces available to the Department, these collisions are infrequent at best. To address this deficiency, we are partnering with the Office of the National Coordinator for Health IT, the Assistant Secretary for Preparedness and Response, and the Assistant Secretary for Administration, to build HHS*labs*, a Silicon Valley-style co-working space that will enable individuals and groups from across the Department to work together without barriers.

2. New methods for problem-solving are an imperative if we are to fully capitalize on employee talent

Bureaucracies thrive on predictability, but this predictability starves organizations' capability to adapt to changing demands and circumstances. Rules and processes that no longer have meaning and thwart the motivations for experimenting with new ideas often remain in place. The problems facing our program managers today are incredibly challenging and require new methods of problem solving, methods that will require us to look outside the organization, to experiment and to iterate. Moreover, in today's fiscal climate, our organization will not be successful if we remain dependent on consultants and advisors for each new program. Instead we need to build internal capacity to address the needs of our complex systems by identifying employees who have promising ideas and by giving them the freedom, time and resources to experiment.

We have recently established two new programs demonstrating the value of allowing small groups of HHS employees to work in new kinds of environments to solve important problems. The first program, HHS*entrepreneurs*, allows us to select high-priority challenges and bring a select number of external innovators into the Department to work with our employees in nimble teams that are given the explicit permission to experiment. Thus far the results have been impressive, not only in terms of solving the initial challenges, but also beginning to change the culture of the host organizations. We believe that expanding this program more broadly across the Department will enhance the scalability of practices that will shorten timelines, enhance productivity and lead to successes that can be measured in outcomes and real assets.

The second program, HHS*ignite*, provides seed funding and an explicit promise of free time to HHS employees to allow them to experiment and test out new ideas. It was designed as a means to encourage and support new concepts and approaches to some of the most vexing challenges in our programs. The most interesting part of this program is the enthusiastic level of interest by program staff. In general, we have found that their interests are not solely based on the financial support but rather on the attempt to find collaborators and new insights in to how to approach their work. The HHS staff clearly desire to engage with others to help them in their journey, but often perceive resistance from supervisors for seeking input from outside their administrative units. Assuming our pilot is successful, we hope to eventually double the number of funded projects, all with the support and buy-in of the participating operating divisions. As part of our commitment we will support projects, collect data, connect expert problem-solvers with teams and showcase the results, in triumph or failure, in order to learn from these model experiments. Both of these programs are further discussed in Section III of this document.

Additionally, this past year, HHS formed an agreement with the West Health Institute to establish an entrepreneur-in-residence position in support of innovative new methods to create value from health data. This arrangement allows experts from outside government to spend a year working on teams within HHS on innovative technology applications to improve health care. The West Health Institute entrepreneur this year has worked on liberating medical data from electronic data systems and making it available to patients and consumers in association with the Blue Button program. We

anticipate expanding this program in 2013 to additional external organizations, and formalizing the process so other entities within the Department can take advantage of this mechanism.

3. Entrepreneurship and experimentation should be supported and encouraged by management

It is our role to create the conditions under which problem-solving behavior is encouraged and enabled. As part of this culture change we must recognize that not every good idea will produce its intended result, and that failed attempts must be recognized for what they can teach us. It will be our role to make new kinds of problem-solving programs widely available across the Department and to reward managers for encouraging their employees to participate. We must start to share the lessons learned from these experimental approaches in the hopes that our stories can inspire others to follow suit, and that we can learn from successes as well as ideas that did not turn out as planned. We are watching ways in which the private sector is promoting experimentation and one area of exploration is the ability to give high-performing employees a dedicated percentage of their time to experiment with new methods for achieving intended mission-relevant results.

Ideally there would also be some way for us to formally give credit to HHS employees for entrepreneurship and experimentation. Our HHS*innovates* program is an attempt at providing official recognition from the Office of the Secretary for entrepreneurial behavior. However, due to constraints relating to the Office Personnel Management's (OPM) federal-wide regulations governing the management of an employee's performance record, innovation awards from this program are not able to be formally recorded in an employee's personnel folder, other than the fact a cash award was made. Agencies are free to include their own notations in employee evaluations but currently the Secretary's awards do not translate into official documentation that can currently be recognized under OPM regulations.

In recognition of the fact that enabling the next-generation workforce requires bringing the right people into the right roles and, by all accounts, the hiring process in the federal government is fundamentally broken, we have been working with the Office of Human Resources within the Assistant Secretary for Administration to define a new process for bringing top notch talent into the government. This effort re-envisions the hiring manager as the center of the process with human resources staff acting as support. This goal of this strategy is to reduce the overall time to hire while increasing the quality of the candidates selected for each position.

4. Innovation can be fueled with open partnerships that leverage communities beyond the Federal government

Federal laboratories have long served as hot-zones of innovation in many technical areas. As the focus on information plays a larger role, it is expected that the programs of the Department will increasingly be knowledge engines for innovation in our broader economy. As the Health Data Initiative has demonstrated, unleashing government resources can bring many unexplored opportunities for open innovation in the private sector. At this year's Health Datapalooza IV we witnessed the development of hundreds of new tools and platforms that used health data to improve public health and how health care is delivered. The challenge competitions that the Department has engaged in over the past two years (through the HHS*competes* program) are yet another promising example of how we can use HHS employees to help define key problems and promote the crowdsourcing of solutions. This year we have begun experimenting with new forms of open innovation, in order to more proactively engage the prospective users of our solutions. We have demonstrated the value of co-design with end users (e.g., through inviting target audiences to interact with us by providing comments, voting and even direct financial sponsorship of promising solutions) so that we can more effectively understand the needs of our user community and design products that more effectively meet their needs. Our HHS*innovates* program has demonstrated success in exposing internal innovations to private sector interests who have taken the results and expanded on them for commercial benefit. We believe that there may be new opportunities for the government to leverage open innovation through new uses of the America COMPETES Act and uses of crowdsourcing platforms for featuring HHS projects to the public for sharing ideas and promoting early stage product and prototype development.

On the data front, we are seeking to accelerate the pace of innovation and system transformation through further development of the Health Data Initiative. We have sought to promote a community of data users, both inside and outside of the Department. To achieve this, we are now taking the next steps to recognize the full value of the data by transforming healthdata.gov from a "card catalog" model to a "wiki" model that allows internal and external users to create content interactively. We want to not only direct users to the data, but also provide them with the necessary context around the data, including information and examples of how we see data being used for value creation. We will also utilize code-a-thons, challenge competitions, and data enclaves as strategies to cultivate innovative solutions to key health care problems. Other key data initiatives will include defining the government's role in value creation and looking at reimbursement models and incentives, as well as removing regulatory roadblocks inhibiting the creation of new medical products.

5. Objective measure of results can provide the compass for better decision-making and iterative learning

It has often been said that change is difficult to achieve if you don't have ways to measure the results. In many cases, we have found that program staff are not trained to measure their results or perform their tasks in ways that can be quantitatively assessed. Additionally, line management is often not focused on using metrics to measure

progress. One key area we hope to engage many parts of the Department in is the development of process and outcome measures that will be easily adapted to the modes of experimentation we promote in problem-solving. The second step is promoting the knowledge that the lack of success in experimentation does not equate to failure, unless nothing is learned from it. Therefore, we hope to engage all of our programs in exploring risk-taking in ways that can allow iterative assessments of progress and promote the sharing of data and experiences with others. Working with the evaluation components of the Department, we will develop quantitative assessment tools and promote transparency of results so that many can learn from a few.

IV.   Summary and Recommendations

The most recent results from the Office of Personnel Management's View Point Survey reveal that nearly all HHS employees (92 percent) report that they are constantly looking for ways to do better in their job. And yet, according to the 2012 results, only 61 percent say they feel encouraged to come up with new and better ways of doing things, and only 42 percent feel that their creativity and innovation are rewarded. In terms of our overall innovation score we are ranked 8th among the 18 large agencies.[1] We believe we can do better and that it should be our goal to rank at the top of the innovation index. The numbers speak for themselves; it is clear that we must do more to capitalize on the ingenuity of our workforce, empower them to take action and reward innovation and risk-taking within our workforce.[2]

According to the *Partnership for Public Service*, there are six factors that have a disproportionately high impact on the overall innovation score.[3] These relate to whether employees:

- are given a real opportunity to improve their skills in the organization
- feel that their supervisor/team leader provides them with opportunities to demonstrate leadership skills
- have a high level of respect for their organization's senior leaders
- are satisfied with involvement in decisions that affect their work
- are rewarded for providing high quality products and services
- have a feeling of personal empowerment with respect to work processes

We believe that these are the metrics that our Department needs to use to gauge the results of our work. The Employee Viewpoint Survey (EVS), which is conducted annually, is certainly a crude measure of our ability to achieve success in these areas, but we also believe it is a good

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[1] Partnership for Public Service, *The Best place to Work in the Federal Government 2012 Rankings.* See http://bestplacestowork.org/BPTW/index.php

[2] 2012 Federal Employee Viewpoint Survey Results.   See http://www.hhs.gov/asa/ohr/fhcs/hhs2012-evs-report.pdf

[3] Partnership for Public Service, *The Best place to Work in the Federal Government 2012 Rankings.* See http://bestplacestowork.org/BPTW/index.php

starting point and one that can provide valuable insight at the office, division and departmental levels.

Many of our strategies draw upon the conclusions of the *Partnership for Public Service's* most recent release of the Best Places to Work in the Federal Government. The report cited the need for Federal leaders and managers to emphasize to employees the importance of innovation and risk-taking, to create open and collaborative cultures that allow innovations to take root, and the importance of offering appropriate incentives and rewards for innovation.[4]

Change takes time, clear expectations of outcomes and, most importantly, **leadership**. The elements we describe in this strategy are the keys to accelerating the creation of a culture that rewards and expects employees to reach for a higher bar of performance. This only works, however, if management acts in lockstep to help achieve these goals.

We ask that you expose the HHS leadership to the principles laid out in this memo and help us communicate our initiatives broadly across the Department. We also look to your support for communicating the importance of these innovation metrics to managers. They are certainly not the only way that we should measure progress but they do serve as a universal benchmark against which we can measure process. Finally, we ask that you consider implementing innovation metrics in your senior leaders' and managers' performance plans and regularly follow up on the achievement of these goals.

We believe that a stronger connection between innovation expectations and the rewarding of entrepreneurial behavior and risk-taking will play a critical role in encouraging the adoption of tools and programs discussed here. If we can achieve the goals described in this paper, we will have not just planted the seeds for systemic culture change at the department but seen the first saplings start to grow.

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[4] Ibid.

APPENDIX A: DETAILS OF SELECTED PROJECTS

Provided below are brief descriptions of the current projects initiated by the Office of the Chief Technology Officer, including their goals, future plans and key metrics by which we hope to measure their success. At the end of this section is a graphic depicting the interrelationships of these projects.

A. HHSconnect

The foundation to getting the most out of our assets is collaboration, both virtual and physical. In 2012 the Chief Technology Officer, in collaboration with the Assistant Secretary for Administration, initiated the HHS*connect* project (Yammer) across the Department. This program provides a secure on-line collaboration environment that allows any employee to connect with their peers. We have used the platform for many uses, including large group discussions about widely relevant topics (i.e. retirements and benefits), to simple broadcast questions to other employees across the Department. We have seen many examples of problems being solved more quickly as a result of this peer interaction. For example, when one employee was having trouble unblocking a website, he posted the problem and was immediately connected to the right person to solve the problem (normally this process may have taken days, but here it took a matter of hours). We have even seen examples of Department leaders use the HHS*connect* platform to get feedback from employees in preparation for a speech he was crafting. Our ultimate goal is for every employee to create an account on the platform and use it effectively in their course of daily work. We are in the process of developing metrics that will allow us to move from simply measuring the number of registered users to metrics on new collaborations.

B. HHSlabs

Physical space is critically important to promote effective in-person collaboration. The spaces available in current Department facilities are not at all conducive to the kind of 21st century efforts we are espousing. To promote effective in-person collaboration we are planning to establish HHS*labs*, which is an innovation zone modeled after the open plan workspaces effectively utilized by modern and nimble organizations. This area will offer employees and stakeholders a physical space where they can work together to test out ideas, conduct brainstorming sessions, and collaborate in other ways without artificial or physical barriers. Ideally, as a public good, the innovation zone will be available to those outside of the Department thereby allowing for enhanced collaboration with external stakeholders and collaborators.   Working with the Assistant Secretary for Administration, our goal in the next year is to locate a suitable space for HHS*labs* and offer it on a pilot basis to a limited number of groups within the organization. As with many of our projects, our plan is to build this program iteratively by starting with a minimum viable prototype (in this case the simplest functional lab space we can develop on a minimal budget) and refining it based on the needs and wishes of our user-base.

C. HHSentrepreneurs

Once we have the foundations of effective collaboration built, we need to identify the internal innovators and connect them to resources, mentoring and environment needed to act upon their ideas. To this end, we launched the HHS*entrepreneurs* program last year with the express intent of selecting high-priority problems and allowing entrepreneurial teams to form around these issues. This program enables our agencies to recruit external experts and entrepreneurs to work with HHS staff on some of the Department's toughest challenges. HHS*entrepreneurs* provides a novel approach to attract outside talent to the Department and to incorporate open innovation concepts to bring the best ideas from all sectors. In addition to accelerating the completion of high-profile projects, HHS*entrepreneurs* encourages career federal employees to learn and apply formal project methods used to boost innovation, such as agile software development and lean production. We are just closing out the first four projects from the first round of the program and can report excellent results from the teams.

We are using this program, and applications submitted by our agencies, as a window into understanding the most vexing problems facing our agencies and the skill sets their staff believe would help them resolve their challenges. We have been analyzing the needs for additional expertise and plan to use this information to direct future educational efforts.

Projects have been submitted for the second round of HHS*entrepreneurs* and we anticipate putting out a call for the next cohort of external applicants in July 2013.

D. HHSignite

Earlier this year, we launched HHS*ignite*, a new Department-wide seed-funding program to support early stage projects that test the feasibility of new concepts in solving existing problems. This pilot will provide $10,000 to 8 teams who have early stage ideas designed to be tested in no more than three to six months.

In the first round, we received 66 applications from HHS employees – more than three times what we were expecting. We are particularly encouraged by the wide range of ideas proposed by our employees and with the high rate of engagement, which was demonstrated by the fact that each operating division, including most staff divisions, submitted proposals. Assuming the first round is successful, our goal for the coming year is to double the portfolio, so that we can provide up to 16 awards. In addition to growing the program, we are in the process of developing metrics to assess the program from the perspective of both the participants and the managers. We will be looking at inputs (e.g. type of project and the diversity of teams) to the outputs (e.g. completion rate and number of pilots that lead to usable proofs-of-concept) as well as operational and efficiency indicators.

E. HHSfairtrade

We are currently in the process of developing and pilot testing an internal platform called HHS*fairtrade*, which would allow internal innovators to post new ideas and solicit pledges of resources from other internal entities who are interested in assisting. These pledges could include in-kind contributions, such as staff-time or a willingness to serve as a testing site, or more traditional resources, such as use of space or financial backing. The idea for such a platform came from one of our own innovators whose team had won the HHS*innovates* contest described below. We have followed the trajectory of so-called "crowdfunding" platforms in the commercial world, and believe they may have applicability to innovating in health and human services – both internally to the Department and externally.

Assuming resources can be found, our goal for the coming year is to develop a prototype that we can pilot and demonstrate proof-of-concept among the employee base. We have begun working with the Informatics Laboratory at the Centers for Disease Control and Prevention to develop wire frames and have established a working group to consider policy and implementation issues necessary to carry out the initiative.

F. HHScompetes

We recognize that, while HHS employees have many good ideas, these ideas can be further leveraged by engaging non-federal stakeholders through open innovation. Our office has been responsible for implementing the concept of challenge competitions across the Department by establishing administrative and policy infrastructure to conduct challenge competitions. The HHS*competes* program, conducted in partnership with all operating divisions, has enabled over 100 competitions. Since the establishment of the challenge program in 2011, our agencies have helped sparked the development of many innovative mobile apps, health campaigns and technology platforms—tools that likely would not have been developed by the government alone. Perhaps most exciting is the range of solutions providers who have participated. Winners of HHS challenge competitions have included many nontraditional players such as students, retired worked, young companies and entrepreneurs who would have never considered, let alone bee been eligible, to apply for a traditional grant or contract. In fact, last year, the Department was awarded the Case and Joyce Foundations Prize for Excellence in Promoting Innovation through Prize Competitions.

Our goal is to formalize the challenge program by providing it with a functional home within the Assistant Secretary for Administration. The responsibilities focus on outreach to the agencies, training of employees on challenge design, and working with the agencies to develop a blanket purchasing agreement so that our units can easily contract with outside challenge management firms to assist in the running of large-scale competitions. This an arrangement will allow for challenge competitions to achieve the goal of becoming the third leg on the acquisition toolbox, taking its rightful place next to grants and contracts as a nimble mechanism to bring about new solutions.

G. Health Data Initiative

Perhaps even more significant than our challenge program in leveraging the power of our external partners has been the innovation we have helped to unleash through our Health Data Initiative. Our office has played an important role in creating value out of our health data through continued efforts to educate the public about our data and what can be done with it. Internally, we have worked with data leads across HHS to identify high-value data sets that are ripe for release. Externally, we work closely with the Health Data Consortium and private partners to develop an ecosystem around health data. Furthermore, our group played a central role in organizing and overseeing the Health Datapalooza series of conferences. This year, we engaged over 2,000 in-person attendees and thousands of virtual attendees coupled with 31 million impressions made from those receiving communications about the event.

To date, significant effort has gone into making a large volume of data available from various agencies in multiple formats for public consumption and innovation. Over the coming year, the Health Data Initiative will adjust its focus to efforts in three specific areas:

> 1) *Strategically focused liberation*. We will be increasing emphasis on liberating data sets that are deemed to be high value and/or are of strategic importance;
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> 2) *Appropriate dissemination*. The Healthdata.gov platform will be re-engineered in order to enable greater access to data and more robust communications about the value and utility of the data; and
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> 3) *Data education*. Increasing educational outreach efforts around our data will reach both internal and external audiences over a variety of channels.

The Health Data Initiative will accumulate knowledge from departmental colleagues about the data assets we control, and disseminate the knowledge about data as an asset. We are also developing a series of process and outcome metrics to measure our success in accelerating the pace of innovation and system transformation through further development of the Health Data Initiative. These will focus on process metrics such as response time to public inquiries, metadata quality, educational material use, dataset delivery timeline and outcome measures such as data access, impacts on health care access and quality, data utilization, demand for data sets and creation of tools.

H. HHSinnovates

Rewards and recognition are fundamental elements that are integral to incentivizing innovation along with the sharing of good ideas. The HHS*innovates* program is our ultimate way of recognizing meritorious activities and highlighting them to HHS leadership and the broader community of stakeholders. Since the program was launched we have identified over 500 promising endeavors, with 36 of them rising to the level of Secretarial award. A number of these solutions have gone onto broad adoption and commercial success, in some cases as a direct result of the exposure the innovations received from our program. We have also used our role as convener and matchmaker to "introduce" components of the Department that otherwise would not have collaborated.

For example, the National Institutes for Diabetes and Digestive and Kidney Diseases at NIH was deemed a finalist for development of the Body Weight Simulator, a tool to help create personalized weight management programs. During the awards ceremony a member of the leadership team suggested that this tool could have applicability to federal employees and suggested that we broker a conversation with the Federal Occupational Health unit to discuss the idea of piloting this tool among the federal workforce.

Based on feedback from our employees, we are moving to an annual cycle for the HHS*innovates* program, with the HHS*ignite* program that provides seed funding to be run on an alternate cycle. We believe this will more fully cover the innovation spectrum by providing employees with seed funding to test good ideas and the rewards for those that are truly innovative. One area we would like to further explore in the coming year with HHS*innovates* is the idea of recognizing experiments that were not successful, but generated effective learning.

I. **HHS Innovation Council**
To help identify barriers to innovation and promote crosscutting solutions involving policy change and project execution, in collaboration with the Assistant Secretary for Administration, we oversee the HHS Innovation Council. This is a chartered body that reports directly to the Secretary and Deputy Secretary, with innovation representatives from every unit across HHS. The Council meets monthly and selects two to three new initiatives to delve into each year. The Council has had tremendous success overseeing and implementing the Open Government Initiative as well as exploring innovation interests, such as crowdfunding and providing technical help to agencies through individualized consults by staff members. In addition, each month the Council brings in an outside speaker, either from the private sector or another part of the government, to introduce the Council to new thinking about innovation. We will continue identifying new topics to explore, such as the power of networks in health care and new forms of interactions with the private sector.

Relationship of Innovation Projects
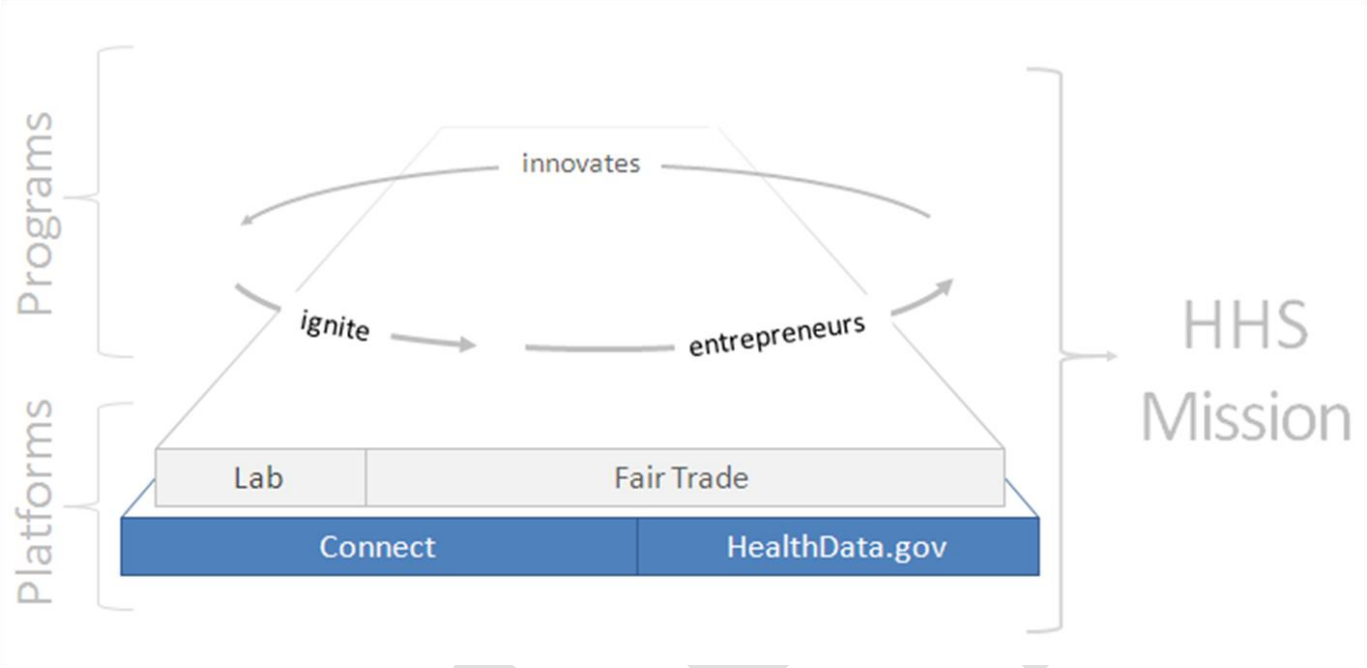
APPENDIX B: DRAFT GOALS & METRICS

1. **Overarching goal for HHS: Move into the top quarter of the innovation index among large agencies, as measured by results of OMB's Employee View Point Survey**

   a) Metrics (from EVS) for 2013- 2014. Positive response in EVS to these questions:
      i) I am constantly looking for ways to do my job better
      ii) I feel encouraged to come up with new and better ways of doing things
      iii) Creativity and innovation are rewarded

2. **HHS agency performance goals: Establish a performance management goal to be assessed for OPDIV and StaffDive progress in innovation activities related to program management and workforce culture**

3. **CTO Program Goals:**

   b) **Health Data Initiative – Overarching Goals**
      - Strategically focused liberation - Increased emphasis will be placed on liberating data that are deemed to be high value data sets and/or strategic importance.
      - Appropriate Dissemination - Maximize the use of the Healthdata.gov platform to enable greater access to the data and more robust communications about its value.
      - Data Education - Education about the data will have both internal and external audiences. HDI will accumulate knowledge from departmental colleagues about the data assets we control, and disseminate the knowledge about data as an asset.

      i) Subcomponent: HealthData.Gov Platform
         (1) Short-term goal launch interactive annotation capability this year
         (2) Data liberation goal: 500 listings in healthdata.gov

      ii) Subcomponent: Health Data Leads
         (1) Short-term goal: Improved data quality, Promote Data's value and External engagement
         (2) Long-Term goal: Exhibit Uses of Data, Policy Development, Cultural Shift within HHS

      iii) Subcomponent: National Committee on Vital and Health Statistics, Working Group on HHS Data Access and Use
         (1) Short-term: Develop a rating system of health data sets
         (2) Long-term: Demonstrate approaches to strengthen uses of microdata while appropriately employing privacy and security safeguards.

iv) Subcomponent: Enable and Incentivize Data User Marketplace
   (1) Simplify and democratize our materials for broader and clearer understanding of both how to access health data, and ideas for what to do with the data.

v) Metrics for Measuring Success on Health Data Initiative
   (1) Process Metrics
      (a) Response times to public inquiries - HDI will improve the timeliness of responses to public inquiries through HealthData.gov
      (b) Metadata quality - track quantitative improvements in the value of the metadata as well as the process for obtaining higher quality metadata.
      (c) Educational material use and value measures - evaluate educational material for uses with internal audiences
      (d) Decrease dataset delivery timeline - shorten the time between data request and deliver of a dataset to the platform
   (2) Outcome Metrics
      (a) Data Access
      (b) Measure data liberation's impact on health care
      (c) Increase the utilization of the data in problem solving across health care
      (d) Increase the number of available data sets to 500 by 12/31/13
      (e) Identify more than 200 new apps based on HHS data over the next year
      (f) Monitor increased demand for individual health data through Blue Button

c) **HHS*innovates***
   i) Goal: Identify innovations developed by HHS employees (and their partners)
      (1) Target: Increase submission to 60 nominations with focus on increasing submissions from small operating divisions, categories other than technology, and low-cost innovations.
      (2) Metric: Innovations submitted by HHS employees
   ii) Goal: Share/Disseminate Innovative Ideas & Solutions
      (1) Targets: Increase internal and external voting to 12,000 votes cast; increase media mentions
      (2) Metrics: Votes cast by HHS employees; votes cast by public; media mentions
   iii) Goal: Reward employees for innovative behavior
      (1) Target: increase number of small operating divisions applying to program
      (2) Metric: Assess number of applicants from small operating divisions
   iv) Goal: Scale and promote winning ideas across HHS
      (1) Target: Select one innovation to scale in 2013-14
      (2) Metric: Assess extent to which OS has helped to scale innovation

d) **HHS*entrepreneurs***
   i) Goal: Understand the current level of innovation across HHS
      (1) Metrics: Analyze round 1 and 2 project submissions and requested skill sets for proposed external entrepreneurs; and Analyze and summarize feedback from

interviews with internal and external entrepreneurs who participated in round 1 of the program.
ii) Goal: Improve and accelerate the process for recruiting external talent at HHS
  (1) Target: In round 2 of the program, the CTO Office seeks to reduce the time required to hire external entrepreneurs. CTO plans to reduce the time required to hire an external entrepreneur from 4-5 months (Round 1) to 1-2 months (Round 2).
  (2) Metric: Analyze the number and quality of external entrepreneur applications received for round 1 and round 2.
iii) Goal: Accelerate the completion of high-priority projects
  (1) Target: we will analyze the results of a questionnaire sent to federal career staff associated with the round 1 HHSentrepreneurs project
  (2) Metric: Analyze responses from questions 7 and 8 of the HHSentrepreneurs dashboard questionnaire.
iv) Goal: Teach Federal career employees new and sustainable skills to encourage innovation
  (1) Target: Develop an innovation seminar series
  (2) Metrics: Analyze responses from questions to HHSentrepreneurs dashboard questionnaire. Analyze attendance and participation at HHS "Topics in Innovation" seminar series to be developed in 2013.

e) **HHS*ignite***
  i) Goals
    (1) Successful execution of the 8 projects
    (2) Support the project team members with problem solving techniques/perspectives,
    (3) Empower entrepreneurs to take these techniques/perspectives with them beyond the ignite project,
    (4) Foster meaningful buy-in and participation from the implementation team.
  ii) Metrics
    (1) Participant's Assessment
    (2) Manager's Assessment
    (3) Implementation Team Assessment
  iii) Output Indicators
    (1) 75% of projects meet goals they proposed
  iv) Input Indicators
    (1) Number of applications (hoping for 40)
    (2) Diversity of Project Teams and Types
  v) Operational Indicators
    (1) Number of self-defined project milestones reached
    (2) Number of Trainings we offer the participants
  vi) Efficiency Indicators
    (1) Time to get the selected team operational, including budgetary mechanisms in place

f) HHS*fairtrade*

    i) Goal: Test concept to define and understand utility of tool for HHS employees

        (1) Target: Develop beta version of tool and deploy it

        (2) Metric: Measure time to build prototype e and resolve policy issues

    ii) Goal: Evaluate tool and make recommendations for development of version 2.0

        (1) Target: Gather baseline data about tool's use and community interest

        (2) Metric: Inputs from user community and synthesize results